

SEQUENCE LISTING

<110> Alnylam Pharmaceuticals Inc.

<120> iRNA CONJUGATES

<130> 14174-070W01

<150> US 60/465,665

<151> 2003-04-25

<150> US 60/463,772

<151> 2003-04-17

<150> US 60/469,612

<151> 2003-05-09

<150> US 60/465,802

<151> 2003-04-25

<150> US 60/493,986

<151> 2003-08-08

<150> US 60/494,597

<151> 2003-08-11

<150> US 60/506,341

<151> 2003-9-26

<150> US 60/510,246

<151> 2003-10-9

<150> US 60/510,318

<151> 2003-10-10

<150> US 60/518,453

<151> 2003-11-07

<150> PCT/US04/07070

<151> 2004-03-08

<160> 28

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<210> 1

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<212> PRT

<213> Artificial Sequence

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<223> Exemplary Cell Permeation Peptide

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Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5 10 15

<210> 2

<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary Cell Permeation Peptide

<400> 2
Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln Cys
1 5 10

<210> 3
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<400> 3
Gly Ala Leu Phe Leu Gly Trp Leu Gly Ala Ala Gly Ser Thr Met Gly
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Ala Trp Ser Gln Pro Lys Lys Lys Arg Lys Val
20 25

<210> 4
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<220>
<223> Exemplary Cell Permeation Peptide

<400> 4
Leu Leu Ile Ile Leu Arg Arg Arg Ile Arg Lys Gln Ala His Ala His
1 5 10 15
Ser Lys

<210> 5
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Exemplary Cell Permeation Peptide

<400> 5
Gly Trp Thr Leu Asn Ser Ala Gly Tyr Leu Leu Lys Ile Asn Leu Lys
1 5 10 15
Ala Leu Ala Ala Leu Ala Lys Lys Ile Leu
20 25

<210> 6
<211> 18
<212> PRT
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<220>
<223> Amphiphilic model peptide

<400> 6

Lys Leu Ala Leu Lys Leu Ala Leu Lys Ala Leu Lys Ala Ala Leu Lys
1 5 10 15
Leu Ala

<210> 7

<211> 9

<212> PRT

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<220>

<223> Exemplary Cell Permeation Peptide

<400> 7

Arg Arg Arg Arg Arg Arg Arg Arg
1 5

<210> 8

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary Cell Permeation Peptide

<400> 8

Lys Phe Phe Lys Phe Phe Lys Phe Phe Lys
1 5 10

<210> 9

<211> 37

<212> PRT

<213> Artificial Sequence

<220>

<223> Exemplary Cell Permeation Peptides

<400> 9

Leu Leu Gly Asp Phe Phe Arg Lys Ser Lys Glu Lys Ile Gly Lys Glu
1 5 10 15
Phe Lys Arg Ile Val Gln Arg Ile Lys Asp Phe Leu Arg Asn Leu Val
20 25 30
Pro Arg Thr Glu Ser
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<210> 10

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<212> PRT

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<220>

<223> Exemplary Cell Permeation Peptides

<400> 10

Ser Trp Leu Ser Lys Thr Ala Lys Lys Leu Glu Asn Ser Ala Lys Lys
1 5 10 15
Arg Ile Ser Glu Gly Ile Ala Ile Ala Ile Gln Gly Gly Pro Arg
20 25 30

<210> 11

<211> 30
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<220>
<223> Exemplary Cell Permeation Peptides

<400> 11
Ala Cys Tyr Cys Arg Ile Pro Ala Cys Ile Ala Gly Glu Arg Arg Tyr
1 5 10 15
Gly Thr Cys Ile Tyr Gln Gly Arg Leu Trp Ala Phe Cys Cys
20 25 30

<210> 12
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<400> 12
Asp His Tyr Asn Cys Val Ser Ser Gly Gly Gln Cys Leu Tyr Ser Ala
1 5 10 15
Cys Pro Ile Phe Thr Lys Ile Gln Gly Thr Cys Tyr Arg Gly Lys Ala
20 25 30
Lys Cys Cys Lys
35

<210> 13
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 13
Arg Lys Cys Arg Ile Val Val Ile Arg Val Cys Arg
1 5 10

<210> 14
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<212> PRT
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<220>
<223> Exemplary Cell Permeation Peptides

<400> 14
Arg Arg Arg Pro Arg Pro Pro Tyr Leu Pro Arg Pro Arg Pro Pro Pro
1 5 10 15
Phe Phe Pro Pro Arg Leu Pro Pro Arg Ile Pro Pro Gly Phe Pro Pro
20 25 30
Arg Phe Pro Pro Arg Phe Pro Gly Lys Arg
35 40

<210> 15
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<212> PRT
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<220>

<223> Exemplary Cell Permeation Peptides

<400> 15

Ile Leu Pro Trp Lys Trp Pro Trp Trp Pro Trp Arg Arg
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<210> 16

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 16

Ala Ala Val Ala Leu Leu Pro Ala Val Leu Leu Ala Leu Leu Ala Pro
1 5 10 15

<210> 17

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetically generated peptide

<400> 17

Ala Ala Leu Leu Pro Val Leu Leu Ala Ala Pro
1 5 10

<210> 18

<211> 13

<212> PRT

<213> Human immunodeficiency virus

<400> 18

Gly Arg Lys Lys Arg Arg Gln Arg Arg Arg Pro Pro Gln
1 5 10

<210> 19

<211> 16

<212> PRT

<213> Drosophila Antennapedia

<400> 19

Arg Gln Ile Lys Ile Trp Phe Gln Asn Arg Arg Met Lys Trp Lys Lys
1 5 10 15

<210> 20

<211> 21

<212> DNA

<213> Artificial Sequence

<220>

<223> "Dual targeting" siRNAs

<221> misc_feature

<222> 20, 21

<223> n = dT= deoxythymidine

<400> 20
uaccagcacc caggugcugn n 21

<210> 21
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> "Dual targeting" siRNAs

<221> misc_feature
<222> 20, 21
<223> n = dT= deoxythymidine

<400> 21
ccgggcaucc ggacgaguun n 21

<210> 22
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Dual targeting siRNA

<221> misc_feature
<222> 1, 2
<223> n = dT= deoxythymidine

<400> 22
nnaugguagu gggucgacga c 21

<210> 23
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> "Dual targeting" siRNAs

<221> misc_feature
<222> 1, 2
<223> n = dT= deoxythymidine

<400> 23
nnggcccgc gccagcuca a 21

<210> 24
<211> 21
<212> DNA
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<220>
<223> Pseudocomplementary, bifunctional siRNA

<221> misc_feature
<222> 5
<223> n = A* = 2-aminoadenine

<221> misc_feature
<222> 20, 21
<223> n = dT= deoxythymidine

<400> 24
uaccngcacc caggugcugn n

21

<210> 25
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Pseudocomplementary, bifunctional siRNA

<221> misc_feature
<222> 16
<223> n = A* = 2-aminoadenine

<221> misc_feature
<222> 20, 21
<223> n = dT= deoxythymidine

<400>25
ccgggcaucc ggacngguun n

21

<210> 26
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<213> Artificial Sequence

<220>
<223> Pseudocomplementary, bifunctional siRNA

<221> misc_feature
<222> 1, 2
<223> n = dT= deoxythymidine

<221> misc_feature
<222> 7
<223> n = U* = 2-thiouracil

<400> 26
nnauggnagu gggucgacga c

21

<210> 27
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> Pseudocomplementary, bifunctional siRNA

<221> misc_feature
<222> 1, 2
<223> n = dT= deoxythymidine

<221> misc_feature
<222> 18
<223> n = U* 2-thiouracil

<400> 27
nnggcccgcguc gcccgagcnca a

21

<210> 28
<211> 23
<212> DNA
<213> Mus musculus

<400> 28
aagctggccc tggacatgga gat

23